



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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April 28, 2011

Ms. Karen Wood
Eastern Regional Office, Air Quality Program
Washington Department of Ecology
4601 N. Monroe Street
Spokane, WA 99205-1295

Dear Ms. Wood:

The Department of Ecology (Ecology) has completed an evaluation of health risks from diesel engine exhaust particulate (DEEP) and nitrogen dioxide (NO₂) emissions from the proposed expansion of Titan Data Center in Moses Lake, Washington. The project's risks were evaluated under the second tier review provisions of Washington Administrative Code (WAC) 173-460-090.

Ecology's evaluation indicates that the proposed expansion could result in an increased cancer risk of up to 2.3 per million for workers at the maximally impacted commercial receptor, which is the Columbia Basin Secondary School. This is the highest reasonable estimate of increased risk of lung and bladder cancer at any location in Titan's vicinity. The addition of Titan's emissions to existing diesel engine emissions in the area is expected to increase overall DEEP-associated cancer risk to 7.5 per million. The amount of increased cancer risk from Titan itself is less than the state of Washington's threshold of maximum acceptable increased risk level (i.e., one in one hundred thousand or 10 per million) for a single facility, as defined in Chapter 173-460 WAC. Additionally, acute and chronic exposure to particulate diesel emissions from the proposed project is not likely to result in significant adverse non-cancer health effects.

Our analysis indicates the potential for Titan's NO₂ emissions to induce breathing problems in sensitive people under certain circumstances. It is possible that some of the people with asthma near the Titan Data Center will occasionally experience acute breathing impairment primarily due to NO₂ emissions from background sources and Titan. Currently, there is no numerically defined acceptable limit of non-cancer adverse health risks. However, given records of past power failures at data centers in the Grant County PUD system and the proposed limitations on diesel generator operation, the chance of asthma effects occurring will be very low.

Due to the low lifetime risk of severe asthma symptoms from Titan NO₂ emissions and the probably infrequent recurrence of high NO₂ exposure situations, Ecology concludes that additional mitigation measures, beyond what is proposed in the April 22, 2011 Preliminary Notice of Construction Approval Order, are unnecessary; however, Ecology will need routine reports of power failures at Titan to determine the appropriateness of assumptions in this

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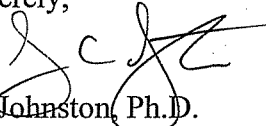
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analysis. Based on actual power outage records, Ecology may re-evaluate the health risks from this project and, if necessary, consider a permit amendment if it is determined that unplanned outages occur more frequently than was assumed in this analysis.

Therefore, on the basis of the enclosed technical evaluation, I approve the second tier petition, and recommend approval of the proposed project conditioned on the incorporation of the findings into Ecology's final decision on the notice of construction application. Under state regulations, Ecology must hold a minimum 30-day public comment period on any project that is subject to second tier review. Please initiate the public comment period on the notice of construction application when you are ready to do so.

If you would like to discuss this review further, please contact David Ogulei at (360) 407-6803 or david.ogulei@ecy.wa.gov.

Sincerely,



Jeff Johnston, Ph.D.
Science & Engineering Section Manager

Enclosure

cc: Lee Willis, R S Titan Lotus, LLC
Jim Wilder, ICF International
David Ogulei, Air Quality Program